
**Time and Mind:
The Journal of
Archaeology,
Consciousness
and Culture**

Volume 6—Issue 2

July 2013

pp. 175–198

DOI:

10.2752/175169713X13589680082172

Reprints available directly
from the publishers

Photocopying permitted by
license only

© Bloomsbury Publishing Plc
2013

Leo Perutz and the Mystery of *St Peter's Snow*

Alan Piper

Alan Piper graduated in 1986 in the History of Ideas at Kingston University (Surrey). His research interests include the history of esoteric thought and the role of mind-altering plant drugs in the history of human culture. His work has been published in the *Journal of Psychoactive Drugs*, *Entheos: The Journal of Psychedelic Spirituality*, and in the *Sino-Platonic Papers* series. alan.piper@btinternet.com

Abstract

A novel published in 1933, describes the isolation of a hallucinogenic drug from an ergot-type fungus. It remarkably predates the discovery the hallucinogenic properties of the ergot-derived alkaloid lysergic acid diethylamide (LSD) by ten years. It also identifies ergot as the secret psychoactive sacrament of the ancient mysteries forty years before this hypothesis became a matter of academic and scientific investigation. In the novel, a central character plans to use an ergot derived drug as an agent of popular religious renewal, prefiguring the New Age religious revival initiated by the popular use of LSD. The story involves the mass testing of a hallucinogenic drug on the unsuspecting inhabitants of an isolated village almost twenty years before the Pont St Esprit incident of 1951, which has been ascribed to the CIA's plans for experimental dosing of unsuspecting civilians with psychoactive drugs. This article investigates how the author could have managed to foresee these future events in such prophetic detail and reveals the sources that were available. In this article the history of psychoactive drugs is set in the context of the political, scientific, literary, and philosophical culture of the interwar period and shows that the cultural history of psychoactive drugs is enhanced by such context.

Keywords: Leo Perutz, *St Peter's Snow*, history of ergot and ergotism, discovery of LSD, psychoactive sacraments, drugs in science fiction

The Mystery

In 1933, the year in which Hitler proclaimed the Nazi party the only political party in Germany and all others were banned, the Austrian author Leo Perutz published a novel called *St Petri-Schnee* (Perutz 1933). It was soon published in English as *The Virgin's Brand* (Perutz 1935), but was not published in English again until there was a later translation in 1990 as *St Peter's Snow* (Perutz 1990). The novel describes how, in 1932, a gentleman scientist seeks to discover a drug that will inspire religious fervor and how an experimental administration of the drug to the local population has a disastrous result. The novel is sometimes categorized as science fiction (Rouiller 2002), or categorized with the fantasy and occult fiction of other contemporary Austrian writers such as Gustav Meyrink, whose occult novels feature transcendental drug experiences. In addition to his novels Perutz's shorter work was published in what has been described the world's first fantasy magazine, *Der Orchideengarten* (*The Orchid Garden*), which featured short works of the fantastic and macabre by contemporary and earlier authors and whose illustrations often displayed a taste for the kind of erotic decadence associated with the Germany of the Weimar years. Perutz's novels often contain an element of the fantastic, with dramatic plots featuring confusing and conflicting interpretations of events.

Competing versions of incidents play on the central question of which is the real version. *St Peter's Snow*, like his other drug novel, *The Master of the Day of Judgement* (1994), is really a psychological detective story. Rather than embracing the supernatural, both novels actually feature rational explanations for mysterious or apparently supernatural events. Regardless, Leo Perutz's novel has to be seen as extraordinarily prescient, if not prophetic, of some extraordinary subsequent historical events and perhaps has yet more mysterious resonances.

Here is a book that appears to be at least ten, if not twenty or even forty, years ahead of its time. It describes the isolation of a hallucinogenic drug from an ergot-type fungus ten years before the discovery of lysergic acid diethylamide (LSD), the testing of that drug on the unsuspecting population of a small isolated village twenty years before the mysterious "Pont St Esprit" incident, which has been attributed to secret testing of a psychoactive drug (Albarelli 2011),¹ and it identifies ergot as the secret psychoactive sacrament of the ancient mysteries forty years before this was proposed in the multidisciplinary study *The Road to Eleusis: The Unveiling of the Mysteries* (Wasson et al. 1978).

Who Was Leo Perutz?

Leo Perutz was an Austrian writer born in Prague. In his professional life he was an actuary but also a highly successful novelist. His family was of Jewish-Spanish ancestry, but largely secularized and not particularly religious. His family moved to Vienna where Perutz attended a number of schools and colleges and eventually studied probability theory, statistics, actuarial science, and

economics. He then worked for various insurance companies including that of his father and the Assicurazioni Generali in Trieste for whom Franz Kafka also worked. As an actuary, he calculated mortality tables and fact-based insurance rates and published on this subject in professional journals.

In Vienna, Perutz frequented the literary cafes, such as the Museum Café and the Café Central. Among his literary acquaintances were Peter Altenberg, Hermann Bahr, Oskar Kokoschka, and Alfred Polgar. In the period before the First World War Perutz took an intensive part in the literary and musical life of Vienna and made several trips to France, Italy, Spain, North Africa, Turkey, Lebanon, Palestine, and Egypt.

Perutz published his first novel in 1915, *The Third Bullet* (Perutz, 1915), and in 1916, a second novel, *The Mango Tree Miracle*, co-written with Paul Frank (Perutz and Frank 1916). Both books were quite successful and the film rights to the *The Mango Tree Miracle* were sold. The film version was premiered in 1921 under the title *The Adventures of Dr. Kircheisen*. Perutz enlisted during the First World War and was sent the Russian front where he suffered a lung shot that meant a long stay in hospital.

Shortly after the birth of his son Felix in 1928 Perutz's wife, Ida, died which plunged him into a deep crisis. After the death of his wife Perutz met occultists with whom he tried to contact his dead wife, while at the same time he remained skeptical. The economic crisis beginning in the late 1920s detracted from Perutz's income and, formerly politically a Social Democrat, in the 1930s Perutz turned to legitimism, represented by a variety of groups that looked to a Hapsburg or other monarchical restoration

and which formed a major part of the popular resistance movement against Nazism following the Anschluss, the Nazi occupation of Austria, in 1938.

In 1933 Perutz's novel *St Petri-Schnee* appeared in Germany, but after the takeover by the Nazis could hardly be sold there. Perutz himself was not on the list of banned authors, but his publisher Zsolnay was considered Jewish and could not deliver his books to Germany and Perutz thus disappeared from its main market.

In 1934 Perutz met his second wife, whom he married in 1935. After the Anschluss, in 1938 Perutz fled with his family first to Venice, from there to Haifa and eventually settled in Tel Aviv. Perutz and his wife still managed to travel to Austria and in 1952 Perutz resumed Austrian citizenship. In the following years, he always spent the summer months in Vienna. In 1957 Perutz fell ill during a visit to Bad Ischl, died, and was buried in the cemetery there.

While he was a bestselling author in Germany in the 1920s and 1930s Perutz lapsed into relative obscurity after the war and was little known outside Austria and Germany. Jorge Luis Borges liked Perutz's work and supported the publication of translations into Spanish in Argentina. Publication of a number of his novels in English by Harvill Press in the 1980s and 1990s promoted renewed interest and reflected Perutz's growing acceptance as an important twentieth-century European author. Perutz's novels often follow the fate of individuals, contain an element of the fantastic, and are usually located in the past or refer to the past. The plot is exciting and is told by numerous allusions, irony, and confusing, conflicting interpretations of the

events. A central theme is the question "What is real?"²

Leo Perutz—Prophet or Initiate?

So exactly what are we to make of the multiple mysteries of Leo Perutz's novel *St Peter's Snow*? Well, at the heart of its story is the isolation of a hallucinogenic drug from a fungal parasite of wheat, which has been artificially cultivated in a Petri dish, and which is capable of reliably inducing a religious experience. However, *St Peter's Snow* was first published in 1933 and, according to conventional accounts, Albert Hofmann first synthesized the powerful hallucinogenic drug LSD, a derivative of ergot, a fungal infestation of grain, on 16 November 1938, but he did not become aware of its hallucinogenic properties until he experienced an accidental laboratory intoxication on 16 April 1943. The accidental intoxication was dreamlike, in which with his eyes closed he perceived "an uninterrupted stream of fantastic pictures, extraordinary shapes with intense kaleidoscopic play of colours" (Hofmann 1980).

But this is not the whole story, because the potential of LSD to reliably invoke a religious-type experience even in the most rationally minded, was only gradually discovered as medical and popular experimentation with the drug revealed this aspect in the 1960s and 1970s. It was a drug that would provide a renewal of religious enthusiasm which, in Perutz's novel, the gentleman scientist, Baron Malchin, is seeking, when he employs a biochemist to isolate a drug with this effect from an ergot-type infestation of grain, commonly called "St Peter's Snow." How could Perutz or his gentlemen scientist character have

anticipated that a chemical isolated from an ergot-type fungus would provide an agent for religious renewal? This was indeed the case when in the 1960s and 1970s the transcendental experience bestowed by LSD led many to seek meaning in the new religious movements of that era, as people sought a framework within which make sense of their drug experiences (Stevens 1987).

Perutz's narrative provides something of an answer to some of the questions that I have already raised inasmuch as the Baron reveals that his attempts to isolate the hallucinogenic properties of the ergot-type fungus were initiated by his historical researches. These revealed that flour from ergotized grain was the secret psychoactive sacrament of the ancient mysteries, but this only provokes further questions. Before reading *St Peter's Snow* I had only come across the idea that the ancient mystery religions may have induced transformative religious experiences using naturally occurring psychoactive drugs, specifically drugs derived from ergot in the case of the Eleusinian mysteries, in *The Road to Eleusis* co-authored by Professor Carl Ruck, R. Gordon Wasson, and Albert Hofmann, the aforementioned discoverer of LSD (Wasson et al. 1978). Following the speculative inquiry of Wasson et al., a second equally sophisticated argument that ergot was the secret psychoactive sacrament of esoteric gnosis in a variety of religious traditions was raised by Dan Merkur in two later books (Merkur 2000, 2001). How had Perutz anticipated both the isolation of a drug capable of inspiring a religious type of experience and also the revelation that ergot was the secret psychoactive sacrament of the ancient Eleusian mysteries (Figure 1), a



Fig 1 A Caryatid depicted carrying the *kiste*, the enigmatic sacred chest of the Eleusian Mysteries, and a Caryatid was keeper of the vessel containing the *kykeon*, the possibly ergotized ritual drink used in the ancient Greek Eleusian Mysteries, Eleusis Museum. Photo: Paul Devereux.

full ten years before the discovery of LSD's hallucinogenic properties and over forty years before Wasson, Ruck, and Hofmann, followed by Merkur, published their conclusions that the ancient mysteries of two millennia ago and subsequent esoteric traditions involved the use of a psychoactive drug derived from an ergot-type fungus?

The Baron's plan was "to rekindle the glow of faith in an age that has grown tepid

and empty" and "to lead the hearts of mankind back to the glamour of the throne and the idea of empire by the grace of God." This idea is rejected in a discussion with the local priest, who believes that "faith is a blessing (that) can only be kindled by patient work, by loving service, and by prayer," but the Baron's scientific assistant Kallisto says "No. It can also be kindled by chemistry."

The Baron describes his exhaustive search, following a clue provided by a historian friend, from whom he learned that "What we call the fervour and ecstasy of faith whether as an individual phenomenon or as a group, nearly always presents the clinical picture of a state of excitation produced by a hallucinogenic drug," but that no such drug is known to science. The Baron's search was inspired by that hint, delivered by the central character's father: "My life's work," says the Baron, "developed out of an idea he casually mentioned." And that search was indeed to discover just such a drug and he believes that he has done so, partly through searching through the ancient Greek and Roman classics of natural history and partly from texts of ancient gnostic and heretical cults. A further clue was derived by the Baron from his observation that the patterns of outbreaks of religious enthusiasm followed the climatic conditions favorable to ergot infestation of grain.

The Story of *St Peter's Snow*

Before addressing the question of what sources Perutz may have had that could explain his apparently extraordinary foresight, a proper summary of the novel's narrative, including some further mysteriously prescient elements, is in order:

The story starts in March 1932 with the central character, Dr George Friedrich Amberg, awakening from a coma in hospital, where he is told that his coma is due to an automobile accident that took place five weeks before. However, as he recovers Amberg gradually pieces together an altogether different recollection of events. Amberg is a doctor, whose father made his name as a specialist on the reign of Emperor Frederick II (1194–1250). Amberg had taken a job as a doctor in a small village named Morwede, via a classified advertisement, to look after the health of the local peasantry on behalf of the landowner, one Baron von Malchin. On his way to Morwede, at a temporary stop in the nearest town, Amberg notices a medieval stone relief of a face in the window of a bric-a-brac shop, which he half recognizes but cannot place, and a book named *Why is Faith in God Disappearing?* Both items are omens of future events that unfold during Amberg's stay in the village. The shop is closed but Amberg feels a powerful impulse to return to the shop another time and buy the book.

Not only the tone of *St Peter's Snow* but also components of its narrative are startlingly modern, even cinematic, which is perhaps not surprising as Perutz also wrote for the stage and several of Perutz's novels have been filmed, including *St Petri-Schnee* (Patzak 1991).

Strikingly modern elements in the book include a protagonist awaking from a coma, whose carers seek to convince him that his recollection of a series of sinister events is a self-constructed fantasy, but are they his benign carers or agents of a cover-up? There is also the now familiar filmic conceit that the players, in his confused recollection that

may only have been a dream or psychotic fantasy, have been constructed from innocent characters of real life, in this case the nurse and orderly caring for the protagonist in his coma.

Following his arrival in Morwede, Amberg is introduced to the adoptive son of Baron Malchin named Frederico, who bears a startling resemblance to the medieval bust in the bookshop. The Baron had known Amberg's father, the historian specializing in Frederick II Emperor of the Holy Roman Empire and the Baron's friendship with his father had supported Amberg's appointment as local physician by the Baron. As explained earlier, an insight granted to the Baron by Amberg's historian father had led the Baron down a specific avenue of historical research of his own. Amberg discovers that the Baron has also hired a Greek female microbiologist named Kallisto, whom Amberg had met before as a laboratory co-worker and who is now engaged in research work on behalf of the Baron. The Baron soon attempts to persuade Amberg to secretly administer an experimental potion to one of the doctor's peasant patients. Amberg is uncomfortable with the idea and accidentally breaks the vial containing the potion before he can administer it and reports back that it had no effect.

The Baron soon reveals to Amberg that he has a secret plan to restore the German Holy Roman Empire through a pretender drawn from a hidden bloodline of Emperor Frederick II. This secret heir is his adoptive son Frederico of the Stauffen family. The Baron later reveals the link between his scientific investigations and his planned revival of the Holy Roman Empire. His researches had revealed that the secret psychoactive

sacrament of the ages was derived from an ergot-type fungus of wheat known locally as "St Peter's Snow" or "Our Lady's Brand," which was known to the Gnostics and other secret sects of the ages and will serve him as an agent of religious renewal.

The Baron has also determined that the fungus was responsible for the waves of religious fervour of the Middle Ages. Kallisto has successfully isolated the active principal of the fungus and the Baron plans to test the potion's potential to create a religious revival by spiking the drinks of the villagers, whom he has invited to a fete. However, instead of inspiring a religious revival the psychoactive compound results in a Communist uprising in which the Baron is killed. The authorities hush up the event to avoid the spread of social unrest and they try to persuade Amberg that recollections are a delusion.

The Role of Ernst Kantorowicz

The summary of Perutz's novel above owes much to a plot summary by Alain Boureau (2001) in his study of the German Jewish historian of medieval political and intellectual history, Ernst Kantorowicz (1895–1963). Why should an elaborate summary of Perutz's largely forgotten novel appear in a study of a now largely obscure German historian? The reason is that Boureau considers Perutz's novel, the circulation of which was banned by the Nazis almost immediately following publication, to parallel an aspect of Kantorowicz's life.

Kantorowicz was the author of a bestselling biography of Emperor Frederick II (1194–1250) of the Holy Roman Empire of which Germany then formed a part (Kantorowicz 1931). Boureau places Kantorowicz in the same world of 1930s

Jewish intellectuals such as Ernst Bloch, Gershom Scholem, and Franz Kafka. This places the publication of Perutz's novel during a period of interest in both Gnostic and Hermetic ideas, Kabbalah, and of drug experimentation in the interwar years. The parallel that Boureau traces is that Kantorowicz's study of Frederick II was written in a spirit of widespread aspirations for spiritual and political renewal of Germany, following defeat in the First World War and subsequent economic depression. Nationalism in Germany of the 1920s and 1930s had more faces than just Nazism; as well as right-wing conservatives and reactionaries the political left espoused its own forms of nationalism. Kantorowicz's nationalism was part of a romantic poetic vision of national renewal depicted in the poem *Secret Germany* by Stefan George (1868–1933).

Kantorowicz was a contemporary of Perutz and also Jewish, who hoped for a renewal of Germany in the spirit of the subject of his study, Frederick II. Kantorowicz depicted Frederick as an idealized spiritual, as much as political, leader of the German nation, when it formed part of the Holy Roman Empire. Though he was an opponent of Nazism and a wartime Jewish émigré escapee from the Nazis, Kantorowicz's hope for national renewal was not entirely remote from Nazi ideals.

Kantorowicz notes Frederick's interest in esoteric matters and that his interests spanned matters that today would be considered the subjects of both experimental science and the occult. According to Kantorowicz's account "no spirit among all the thousand demons of the world was a stranger to (Frederick's) cosmopolitan

mind. All the supernatural magic of the east was at his command and the elusive *jinn*s, and all the satanic poisons of Italy and the immeasurable daring of the German Mephistopheles." Frederick's mind "embraced every line of culture in the contemporary world: Spanish, Provencal, French, Roman, Italian, Arab, Greek and Jew." Add to this his knowledge of tongues, of jurisprudence, of ancient literature, of Roman educational literature, and the literature of the ancient world and the literature of Scholasticism. On this basis he was known as "stupor mundi" meaning "the wonder of the world" and he corresponded with learned individuals from many countries. Frederick II attracted the medieval scholar Michael Scot, along with many other savants, to his court. At Frederick's request Scot oversaw a fresh translation of Aristotle and the Arabian commentaries from Arabic into Latin. There exist translations by Scot himself of Aristotle's works along with the commentaries of Averroes upon them. Scot's manuscripts dealt with astrology, alchemy, and the occult sciences generally and account for his popular reputation as a magician. According to Kantorowicz, Frederick had Michael Scot teach him the properties of herbs and drugs and such was the extent of Frederick's inquiring mind that it seems unlikely that the psychoactive properties of certain plants would have escaped his attention. He was familiar with Pliny (1956), who in Book XXIV of Chapter 102 in his *Natural History* describes a number of mind-altering plants including the *aglaophotis* by means of which the Magi "can summon deities into their presence when they please." So Frederick and thence Kantorowicz are certainly candidates for

handing down knowledge of the role of mind-altering plants in a religious context.

The parallel that Boureau sees between the career of Kantorowicz with Perutz's novel is that Kantorowicz's intention of fueling a romantic and spiritual renewal of Germany actually helped to fuel a Nazi revolution that deprived him of his university position and attempted to exterminate his entire race, in the same way that the Baron's plan for spiritual renewal led instead to a communist uprising and his death. It should be clear from this account that Amberg's historian father, who made a special study of Frederick II, must be modeled on Kantorowicz and Amberg's given middle name is Friedrich, no doubt chosen by his father in honor of Emperor Friedrich II. Thus we have three Fredericks in the story, Frederico of the Hohenstaufen family bloodline, the adoptive son of the Baron, the story's protagonist George Friedrich Amberg, and the central figure of Frederick II, a likeness of which Amberg sees by chance in a shop window *en route* to take up his post as a general practitioner with the Baron.

The Role of Stefan George and the Stauffenbergs

At the time of writing his study of Frederick II, Kantorowicz was part of the circle of scholars, students, and poets surrounding a poet and literary editor called Stefan George, known as the *Georgkreis* (George Circle). In fact Stefan George effectively commissioned Kantorowicz's study, edited it for publication as part of a series of books published for him, and may even have written parts of the manuscript.

Stefan George was considered by his disciples to be a prophet and a priest

and he thought of himself as a messiah of a new kingdom that would be led by an intellectual or artistic elite. Because his poetry emphasized self-sacrifice and heroism, and celebrated the spiritual soul of Germany, Stefan George was popular in National Socialist circles. Stefan George however rejected the use of his vision for political purposes by the Nazis. Although his work could be seen as proto-fascist, many of the leading members of the German Resistance to the Nazis were drawn from among his followers, notably the von Stauffenberg brothers, Claus and Berthold. George's vision of cultural renewal, *Das neue Reich* (*The New Empire*), which outlines a new form of society ruled by a spiritual aristocracy, was published in 1928. George dedicated the work, including the poem *Geheimes Deutschland* (*Secret Germany*) written in 1922, to Berthold von Stauffenberg, who in 1944 took part in a plot to assassinate Adolf Hitler and initiate a military coup against the Nazi elite and who was executed by the Nazis following its failure.

During Kantorowicz's student years in Heidelberg, Berthold's brother Claus von Stauffenberg moved in the George Circle and was deeply influenced by its cultural ideals and idols, above all by the figure of Frederick II, one of the most powerful Holy Roman Emperors of the Middle Ages and head of the House of Hohenstaufen, also known as the Staufers. The House of Hohenstaufen was a dynasty of German monarchs in the Middle Ages, reigning from 1138 to 1254, three members of which were crowned as Holy Roman Emperors.

Already in 1923, Claus von Stauffenberg alluded to himself and his brothers as heirs of the Staufers (Mali 2003). Stefan George

identified both Claus and Berthold von Stauffenberg with the Hohenstaufen dynasty and there was a tradition in the Stauffenberg family of an association with Staufen dynasty (Hoffmann 2008). In the 1920s, Claus's friends were almost all also friends of Stefan George and they were engaged with the romantic youth movement taken with his vision of a *Neue Reich*. George confirmed the Stauffenberg brothers in their sense of identity with the Staufen dynasty and Claus declared himself the heir of the Staufen kings in poems dedicated to George. Thus Frederico, the Baron's protégé and secret heir to his plans for a restored Holy Roman Empire, can be identified with Claus or Berthold von Stauffenberg, as heirs to the Hohenstaufen dynasty, and the Baron with Stefan George.

Berthold von Stauffenberg assisted Stefan George in editing Kantorowicz's biography of Frederick II for publication in a series edited by George that featured a swastika on the cover. A publisher's advertisement insisted that the swastika was an ancient Indian sign and should not be confused with the Nazi use of the swastika. There was surge of interest and use of the swastika following the archaeological work in the late nineteenth century of Heinrich Schliemann and his discovery of the symbol in his excavations of the site of ancient Troy. Schliemann associated the swastika with the migrations of the ancient Indo-Europeans or "Aryans." In the early twentieth century, the swastika was used as a symbol of good luck and success, for example on greetings cards. The work of Schliemann soon became intertwined with the *völkisch* movements, which combined sentimental patriotic interest in German folklore, local history, and a "back-to-the-land"

movement. In this way the swastika became associated with theories concerning the "Aryan" origins of a Nordic master race and was thus adopted by the National Socialists.

Claus and Berthold were both major figures in the July 1940 bomb plot, the attempt by members of the conservative military and their civilian allies to assassinate Hitler and seize power from the Nazi party. The plotters were convinced that if Hitler was assassinated a government acceptable to the Allies could be formed and peace negotiated in time to prevent a Soviet invasion of Germany.

St Peter's Snow and the Search for Arcadia

The summary by Boureau of *St Peter's Snow* omits any reference to two important characters in Perutz's novel. First Prince Arkady Praxatin, the manager of the Baron's estate, an aristocratic émigré escapee from revolutionary Russia, and second Kallisto Tsanaris, the female Greek research chemist employed by the Baron. Praxatin's character dwells on his lost wealth and the possibility of recovering debts from other noble Russian exiles, who are probably now in reality waiting tables in Berlin. The importance of these characters is that they are linked by their names, because in Greek mythology the nymph Kallisto was the mother of Arkas.

In the Greek myth, the nymph Kallisto was turned into bear by a jealous Hera in revenge for Kallisto becoming pregnant by Zeus. To protect Arkas, Kallisto's son, Zeus, hid him in an area of Greece that would come to be called Arcadia, in his honor. In the myth, when Arkas went hunting one day in the woods of Arcadia, he came across his mother. Seeing her son after so long, Kallisto

rushed to embrace him. Not knowing that the bear was his mother, Arkas was about to kill her with an arrow. However, Zeus, taking pity upon the two, decided to avert the tragedy and put them both up in the heavens, and their constellations are now referred to as Ursa Major and Ursa Minor, the big and little bears. The constellations of the big and little bears revolve around the pole star Polaris; according to the historian of esoteric culture, Jocelyn Godwin, in *Arktos*, his study of polar mythology, the swastika, as used on the cover of Kantorowicz's study of Frederick II, may be derived from the movement of Ursa Minor (Kallisto) around the pole star (Godwin 1996).

Arcadia refers to a vision of pastoralism and harmony with nature. The Greek province of the same name dates to antiquity and the province's mountainous topography and sparse population of pastoralists later caused the word "Arcadia" to develop into a poetic byword for an idyllic vision of unspoiled wilderness. Arcadia was associated with bountiful natural splendor; harmony, and is often inhabited by shepherds and has remained a popular artistic subject since antiquity, both in visual arts and literature. The concept of Arcadia figures prominently in Renaissance mythology where it is seen as a lost, Edenic form of life. Of particular note in this respect is *Et in Arcadia ego*, a painting by Nicholas Poussin, which has become famous both in its own right and because of its incorporation into the modern mythology of Rennes-le-Chateau (see, for example, Lincoln 2011). Arcadia is sometimes referred to in English poetry as Arcady, whose inhabitants were regarded as living close to nature, uncorrupted by civilization, and virtuous. They were regarded as having

continued to live after the manner of the Golden Age.

In *St Peter's Snow*, Kallisto appears fond of Arkady and when a jealous Bamberg accuses Kallisto of being Arkady's mistress she describes him as "that lout that bear." The Russian Bear has long been the national personification of Russia and has been used in cartoons, articles, and dramatic plays at least since the seventeenth century. But why should Perutz have included such clear references to the myth of Arcadia in his novel? For Arkady Praxatin with his dreams of reclaiming debts from his fellow exiles it is plainly pre-revolutionary Russia that is his lost Arcadia. For Baron Malchin, Kantorowicz, and Stefan George's circle it is the Holy Roman Empire of Emperor Frederick II. For many contemporaries of Perutz, especially as the Nazi annexation of Austria loomed, it was the Habsburg Empire, nostalgia for which was an abiding theme of fellow Jewish Austrian writer Joseph Roth.

Leo Perutz and the Secret History of LSD

The literary and intellectual world of Vienna, of which Perutz was a part, was influenced by various currents of occult philosophy, which emerge in the work of writers, artists, and composers of the time.

It was a world in which Theosophy, Anthroposophy, Pythagoreanism, astrology, clairvoyance, numerology, and other forms of occult belief played roles—and at times important roles—in the lives of some of the same figures who appear so often in writing about fin-de-siècle Vienna. (Covach 1998)

When I first read *St Peter's Snow* I wondered if Perutz, through occult currents

of thought flowing through his café society contacts, had been a party to a secret tradition with knowledge of a psychoactive sacrament derived from ergot. The idea that just such a secret tradition has persisted through the ages is a central proposition of the work of Dan Merkur and Carl Ruck. Dan Merkur has demonstrated its persistence in the Jewish mystical tradition and Perutz shows his familiarity with the Jewish mystical tradition in his final work, *By Night under the Stone Bridge* (1991).

For over ten years Mark Stahlman has been making occasional web postings concerning his take on the secret history of psychedelics. Mark's secret history is summarized on a tribe.net posting and its core contention is that knowledge of ergot's medicinal and psychoactive powers have been known from prehistory and its use as an initiatory agent in mystery religions was passed down by some of the usual suspects in the heretical and hermetic traditions, the Illuminati, the Freemasons, and also certain orders within the Roman Catholic church. Later, the thread is picked up by groups associated with *fin de siècle* neo-romantic paganism and neo-Gnosticism. (Those interested should check out Stahlman's full account of his hidden history, which can easily be found on the internet: <http://tribes.tribe.net/ethnobotany/thread/5a0356c2-b179-45b4-a6a1-a5ea44e0f36f>.)

More recently Stahlman has quoted Willis Harman, from an interview in 1977 (Fry and Long 1977), concerning the hidden history of LSD. According to Harman:

The story really starts way back in 1935 with a group of followers of the German mystic Rudolf Steiner who lived in a village

in Southern Germany. In 1935 a dark cloud was over Europe so the members of this group set out deliberately to synthesize chemicals which were like the natural vegetable substances which they were well aware had been used in all the world's major religious traditions down through the centuries. By 1938 they had synthesized psilocybin, LSD and about thirty other drugs. Then they stopped to think about the consequences of letting all of this loose, and decided against it. They decided that they were not sure what the negative effects of the drugs would be and that it just wasn't a very wise thing to do. Five years later, in 1943, when Europe was *really* in bad shape, they decided apparently that possible negative consequences were nothing compared to the consequences of *not* doing this.

Now, two members of this group, which lived in a very tight religious community, were in the Sandoz chemical company—that's partly how this project came to be. One of them was the chemist Dr Albert Hofmann. He cooked up the newspaper story that everyone has heard now, about the accidental ingestion of LSD and the realization of what its properties were after an amazing bicycle ride home and the visions and so on. This group quietly gave supplies of the chemical to a number of doctors around the world—in Europe and the United States and Canada—and tried to explain to them what it was they were on about. (Fry and Long 1977)

These are extraordinary claims and as Carl Sagan said "extraordinary claims require extraordinary evidence." Unfortunately it seems that at least one element of this

story is unlikely, which is that "by 1938 they had synthesized psilocybin" because although twentieth-century awareness of the contemporary use of psychoactive mushrooms in Mexico surfaced by the 1920s, the mushrooms were only identified as *Psilocybe* species in 1957 and psilocybin identified as the main active component in 1958—unless this is another cover story.

Where could Willis Harman have got such information? Willis Harman (1918–97) was a mover and shaker in the highest circles of sophisticated psychedelic and New Age circles of the 1960s, 1970s, and 1980s and might have had many sources. However, in an interview with Martin Lee, co-author of a social history of LSD, *Acid Dreams*, this information is attributed to one Al Hubbard, a mysterious figure who moved in the same high society of psychedelic culture as Harman and who had intelligence connections going back to the Second World War (Lee 1988/9). Compared to Hubbard, Willis Harman was a "Johnny Come Lately" to the world of psychoactive drug research. If someone was likely to have knowledge of any secret history of LSD it was Willis Harman's friend and associate Alfred M. Hubbard. Hubbard graduated in the 1920s from bootlegger to government agent, to secret agent as a member of the Office of Strategic Services (OSS).

The OSS was a US intelligence agency created in 1940 at the beginning of the Second World War. The OSS investigated the potential of various "truth drugs" for interrogation purposes from as early as 1941 and these included sodium amytal, cannabis, and peyote. It appears likely that Hubbard graduated from government agent to the OSS early in the Second World

War: Government investigative agencies were a fertile recruiting ground for the OSS. After the Second World War, those involved in this research recruited former Nazi doctors who were involved in the same kind of experimentation in Nazi Germany. It is unlikely that much of the history of psychoactive drug research would have escaped the attention of the Nazis.

Stahlman's claims have a broad credibility in that the European neo-pagan and neo-gnostic movements of the late nineteenth and early twentieth centuries and esoterically inclined freemasonry, which looked to ancient mystery traditions for inspiration, may well have explored drug-induced states. Experimentation with mind-altering drugs was common in *fin-de-siècle* and early-twentieth-century literary and artistic circles, as evinced in H.H. Ewers essay on "Art and Intoxication" published in a German literary and political journal in 1909 (Ewers 1906). It is also significant that, in the late nineteenth century and early decades of the twentieth century, Germany led the field in mescaline research and ethnological researches in South America including amongst those indigenous groups using peyote (Sá 2002).

Drugs and Gnosis in Perutz's Intellectual Milieu

From the *fin de siècle* to the outbreak of the Second World War, interest in psychoactive drugs found expression in both ethnographic investigations into indigenous use of psychoactive plants, individual experimentation and medical investigations, and these fields of investigation overlapped. The famous Greenwich Village peyote party of 1912, enjoyed by members of Mabel Dodge Luhan's bohemian salon, was

facilitated by anthropologist Mark Raymond Harrington (1882–1971) who went on to spend a lifetime in researching Amerindian traditions. Kurt Beringer's monograph on mescaline, *Der Meskalinrausch* (1927), remains the most exhaustive research work on the mescaline experience ever written (Beringer 1927). In 1936, Antonin Artaud (1896–1948) the French playwright, poet, and theater director, traveled to Mexico to investigate the indigenous use of peyote (Artaud 1945). A number of other writers active in the 1920s and 1930s recorded their explorations of the drug experience and throw light on the cultural context in which Perutz was writing.

As Boreau identified in his study of Kantorowicz, the interest of writers such as Walter Benjamin (1892–1940) and Ernst Bloch (1885–1977) in altered mind states existed in the same cultural framework as Kantorowicz's idealized portrayal of Frederick II. Walter Benjamin's experiments with cannabis and mescaline included a hashish session with the philosopher Ernst Bloch. Walter Benjamin's and Bloch's careful records, which they called "protocols," are highly articulate records of the alterations of perception and imaginative flights of fancy caused by eating hashish. The drug experience also fed into Bloch's grand philosophical project, finding expression in his discussion of the comparative properties of hashish and opium in enhancing the imaginative faculty in his three-volume work *The Principle of Hope*, written in 1938–47 in the USA (Bloch 1986). As well as discussing the potential of psychoactive drugs to enhance the powers of the imagination for the purposes of supporting an optimistic and utopian vision of human and social potential,

Bloch also had an associated fascination with the mystery cults and doctrines of the ancient schools of gnosis, discoursing on "Elixirs of the Soul and the Gnostic Journey to Heaven." Bloch shared his interest in gnostic visions of redemption with Walter Benjamin's friend Gershom Scholem who traced the roots of Kabbalah to the Gnostic cults of antiquity (Scholem 1987). So we find here, in Perutz's intellectual milieu, a confluence of contemporary interest in drug experimentation, gnosis, and ancient mystery cults, from which Perutz could have easily absorbed the material relating to this aspect of *St Peter's Snow*.

Though drug experimentation might have been common in *fin de siècle* and early twentieth-century European bohemian and artistic culture, it was not something that individuals necessarily wanted to advertise. Walter Benjamin recorded his own experiments with hashish and mescaline and published one account. However, in a letter to his friend Gershom Scholem (1897–1982), in referring to his drug experiments, Benjamin requests that this information be "locked within the bosom of the Scholem family." Benjamin indicated to Gershom Scholem that his philosophical observations are intimately related to his hashish experiences and in 1928 wrote to Scholem concerning his plans for "a truly exceptional book about hashish," a project that he never realized (Boon 2006). Scholem later became the premier twentieth-century historian of Kabbalah and the Jewish mystical tradition.

The Polish playwright, novelist, painter, photographer, and philosopher, Stanisław Ignacy Witkiewicz (1885–1939), was a pioneer in serious experimentation with psychoactive drugs, who recorded his drug

experiences in an organized manner similar to Benjamin and Bloch's "protocols." He published the record of his experiences in his book *Narkotyki* (1932), of which there is a partial translation into English as *Narcotics* (Witkiewicz and Gerould, 1992). With reference to the Baron's plan in *St Peter's Snow* for engineering a religious renewal through a psychoactive drug, the prospect of a society universally medicated for the purpose of social engineering was envisaged by Aldous Huxley in his novel *Brave New World* of 1931. Prior to the publication of Huxley's later and better known novel Witkiewicz had a similar vision in his novel *Nienasylenie* first published in 1930, a dystopian story that takes place in the future, in which Poland is overrun by a Mongol army. In the second half of the novel the enigmatic figure of a Malayan appears, spreading his mystical religion of universal contentment by means of the "Murti-Bing pill," sold by street vendors, which relieves the anguish of individual personality. Quickly lulled into ecstatic happiness, the pill-takers no longer fear the coming extermination of their egos through social regimentation. Writers and philosophers contemporary to Perutz were contemplating the potential of mind-altering drugs for the purpose of social engineering in a similar manner to the plan of Baron Malchin. Already in "Daedalus or Science and the Future," a paper read to the Cambridge-based Heretics Society, on 4 February 1923, J.B.S. Haldane reported that "Should it ever be generally realised that temperance is a mean we may expect that mankind will ultimately have at its disposal a vast array of substances like wine, coffee and tobacco, whose intelligent use can add to the amenity of life and promote

the expression of man's higher faculties" (Haldane 1926).

The German writer Ernst Jünger (1895–1998) was, like Perutz and Kantorowicz, a veteran of the First World War. Jünger is a tremendously controversial figure for similar reasons to Kantorowicz and Stefan George in that their philosophy appealed broadly to the National Socialist movement that they personally rejected. A major figure of German twentieth-century literature, Jünger's personal philosophy of life was based on his experiences in the First World War as a storm trooper. He glorified the experience of combat, in works such as *Storm of Steel*, his unflinching account of his experiences in the First World War. Jünger's work appealed to the Nazi *weltanschauung* and in common with Kantorowicz he was adopted as a culture hero by the Nazi party against his will. Jünger experimented with a variety of drugs and between 1918 and 1922, including ether, cocaine, opium, and hashish (Loose 1974).

Jünger's powerfully reactionary values are not what many would associate with what is generally conceived of as the enlightening potential of psychoactive drugs. However, Jünger's exploration of consciousness through his drug experiences reflects his commitment to personal liberation through extreme experiences, in the same way as his glorification of his combat experiences. Jünger's early work espoused a right-wing nationalism and Walter Benjamin identified the dangerous nature of Jünger's philosophy: in 1930, Benjamin reviewed a collection of essays entitled *War and the Warrior* edited by Jünger, and warned that it was "nothing other than an uninhibited translation of *l'art pour l'art* to war itself" (Jay 1992). Latterly Jünger is perhaps more accurately described

as a libertarian individualist or even an aristocratic anarchist. Jünger's 1977 novel *Eumeswil* features the figure of the "anarch," the inwardly-free individual who lives quietly and dispassionately within but not of society. According to Jünger, the "anarch" is the positive counterpart of the anarchist and the "anarch" may be considered as autobiographical of the author himself. In his seventies Jünger recorded his lifetime of drug experiments in *Annäherungen: Drogen und Rausch* (*Approximations: Drugs and Intoxicants*) (Jünger 1970).

Though he resisted literary recognition by the Nazi regime, Jünger served as an officer in the German army in the Second World War. He spent some of that time in occupied Paris, where he took the opportunity to mix with writers and artists such as Jean Cocteau and Pablo Picasso, whose use of opium was typical of the avant-garde world of writers and artists of that era. Jünger was on the fringes of the Stauffenberg plot against Hitler sharing Stauffenberg's aristocratic distaste for Nazism and his relations with those involved in the planned coup were close enough for him to have been pulled into the net of several hundred who were investigated and subsequently executed by the Nazis. Jünger's warrior's way, like that of Stauffenberg, did not resonate with the immoral atrocities of the Nazi regime and he was only protected by his reputation as a German war hero (Mitchell 2011).

Later in life Jünger developed a friendship with Albert Hofmann, the discoverer of LSD. According to Hofmann:

Radiance is the perfect term to express the influence that Ernst Jünger's literary work and personality have had on me.

In the light of his perspective, which stereoscopically comprises the surfaces and depths of things, the world I knew took on a new, translucent splendour. That happened a long time before the discovery of LSD and before I came into personal contact with this author in connection with hallucinogenic drugs. (Hofmann 1980)

The friendship was initiated by Hofmann who wrote a letter to Jünger in 1947 in appreciation of his writings. At the time of devoting an entire chapter of his autobiographical work on LSD to appreciation of Jünger, Hofmann must have been well aware of the controversial nature of Jünger's past.

Hofmann describes a session with psilocybin conducted with Jünger; the Islamic scholar Dr Rudolf Gelpke and pharmacologist Professor Heribert Konzett, at the home of the Jüngers, in the former head forester's house near the Stauffenberg family's castle in Wilfingen, where they had moved to soon after the war (Hofmann 1980). The session did not go well for Hofmann or Jünger; who had very difficult experiences. One cannot help wondering whether it was wise to choose the shadow of Wilfingen castle for this event. The Stauffenberg's Castle at Wilfingen was confiscated by the Nazis following the arrest of Berthold Stauffenberg for his part in the plot to assassinate Hitler and served as the headquarters of the fugitive Marshall Petain and for housing aristocrat prisoners of the Nazis. Following his trial, Berthold had been hung in a particularly cruel manner for his part in the plot.

No matter how Jünger's political or mystical proclivities are typified, his interest in psychoactive drugs, gnostic tendencies,

and the conservative opposition to Hitler that he shared with Stauffenberg, complete a picture in which different varieties of mystical nationalism mingled with an interest in mind-altering drugs, Kabbalah, and ancient mystery religions. However, according to Steve Wasserstrom, even Jünger's later work contains its own gnostic conception in which he constructs an Anti-Kabbalah which characterizes Jewish mysticism as sinister (Wasserstrom 2010).

In a letter to Hofmann, Jünger describes a character in the novel he was working on at that time, published as *Heliopolis* (Jünger 1949). The character is a drug researcher who "went on voyages of discovery in the universe of his brain" and "locked himself up in his studio for trips into the dreamy regions. He said that all countries and unknown islands were woven into the tapestry. The drugs served him as keys to entry into the chambers and caves of this world." The drug researcher Antonio Peri has a small library "consisting partly of herbals and medicinal reports, partly of works by poets and magicians." The library included works by "De Quincey, E.T.A. Hoffmann, Poe, and Baudelaire as well as books from the ancient past, herbals, necromancy texts, and demonology of the middle-aged world (sic). They included the names Albertus Magnus, Raimundus Lullus, and Agrippa of Nettesheim ... Moreover, there was the great folio *De Praestigiis Daemonum* by Wierus. Peri's collection included "ancient pharmacology books, formularies and pharmacopoeias ... Among others was found a heavy old volume by the Heidelberg psychologists on the extract of mescal buttons, and a paper on the phantastica of ergot by Hofmann-Bottmingen" ("*Ein*

Arbeit von Hofmann-Bottmingen unber die Phantastica des Mutterkorns"). This last is a pun on Albert Hoffman, whose Sandoz patents of ergot derivatives including LSD were signed by his name followed by his Swiss place of residence as Hofmann, Bottmingen. Antonio Peri's library is resonant with the lines of historical research that led Baron Malchin in Perutz's novel to his knowledge of ergot as the secret sacrament of the ages. Two of the psychoactive plants referred to by Pliny in his *Natural History*, the *gelotophyllis* and *theangelis*, are referred to in *De Praestigiis Daemonum* (Kohl et al. 1998).

While Ernst Bloch, like Kantorowicz, fled from the Nazis to the USA and they both continued their academic lives there through and beyond the war, both Witkiewicz and Benjamin committed suicide at the outset of the war rather than fall into hands respectively of the Russians and Nazis. Jünger survived the war and despite his controversial status accumulated a large number of literary and other awards and honors from various institutions including those of both Germany and France.

Ergot, Revolution, and Religious Revival

How might Perutz have had some knowledge of ergot and in particular its psychoactivity and as a candidate for a secret sacrament? Modern medicinal usage of ergot fungus began in the sixteenth century to induce childbirth and to prevent bleeding after childbirth, but uncertainties of dosage discouraged the use. Arthur Stoll at Sandoz had been researching ergot long before Albert Hofmann came on board. Ergotamine, one of the ergot-derived alkaloids, was first isolated from the ergot fungus by Stoll at

Sandoz in 1918 and marketed as Gynergen in 1921. Despite the gynecological resonance of its name it is marketed for the prevention and cure of migraine headaches, which it accomplishes through its vasoconstrictive properties. Ergotamine is a chemical precursor of LSD and in common with many psychoactive compounds possesses structural similarity to neurotransmitters, the endogenous chemicals that are responsible for brain function, and which affect mood and perception.

It was initially surprising to see a reference to the laboratory cultivation of ergot in Perutz's novel of 1933. However Bove's exhaustive study of the history of ergot research reveals that attempts at laboratory cultivation of ergot, with limited success, actually commenced in the mid-eighteenth century (Bove 1970). In 1929, in Germany, Heinrich Kirchhoff achieved partial success and in 1930 the American Adelia McCrea completed a major study. In the 1930s, McCrea and others including Stoll succeeded in cultivation of ergot in an artificial medium that produced alkaloids, though not suitable for commercial production. Thus the successful artificial cultivation and experimental production of ergot alkaloids was achieved around the time that Perutz published his novel, following a period of intense scientific investigation into the subject. Perutz, as a highly cultivated man of scientific interests, may well have been aware of such developments through the Viennese intellectual cultural scene of which he was a part. His cousin Max Perutz was just about to enter the University of Vienna to study chemistry and Max Perutz went on to become a molecular biologist working under Francis Crick at Cambridge.³

Evidence for Ergot as a Psychoactive Sacrament

Starting in the early 1970s, a number of papers were published interpreting historical cases of mass hysteria as being due to ergotism (Caporael 1976; Matossian 1989; Packer 1998). The most complete investigation was that published by Mary Matossian in 1989. Other than the complex arguments presented in *The Road to Eleusis* and Dan Merkur's two studies, the evidence for the historical use of ergot as a psychoactive drug is fairly thin on the ground. The toxic properties of ergot and uncertainties of dosage might appear to argue against likelihood of sacramental use. However, the toxicity of a number of psychoactive drugs such the mescal bean (*Sophora secundiflora*) and *Hyoscyamus* species such as henbane and datura, does not appear to have discouraged their shamanic use and toxic side effects of psychoactive drugs are often conceived of as an integral ordeal aspect of an initiatory experience.⁴

Torbjørn Alm in a study of the Witch Trials of Finnmark, northern Norway, during the seventeenth century has discovered evidence for initiation into witchcraft by means of ergot (Alm 2003). Frederick Burwick in his study of poetic rapture in the eighteenth and nineteenth centuries proposes an awareness of both the deleterious and inspirational potential of ergot on the part of the poet William Blake (Burwick 1992). In the chapter "Blake and the Blighted Corn," Burwick suggests that within his *The Four Zoas* Blake demonstrates an awareness of the potential of ergotized grain to induce both misery and ecstatic rapture. According to Burwick, Blake's concern with

the blight that affects corn was also evident in his sketches for *The Good Farmer*. The Italian historian Piero Camporesi has argued that the peasantry of the Middle Ages were in a perpetual stupor due to starvation and ingestion of bread contaminated with ergot, as depicted in the painting *The Land of Cockaigne* (1567) by Pieter Bruegel the Elder. Camporesi evidences from primary sources that the intoxicating power of the bread of the poor was well known (Camporesi 1996). During the Middle Ages the hallucinatory symptoms of ergot poisoning were associated with the sufferings of St Anthony and the order of St Anthony was founded in 1093 to care for sufferers, and well into the eighteenth century the symptoms of ergotism were attributed to demonic possession or divine revelation (Bove 1970).

It appears that most members of the medical profession managed to remain unaware of ergot as the source of the symptoms of ergotism until as late as the middle of the nineteenth century, though Thomas Beddoes had correctly identified ergot as the source of nervous disorders in 1793 (Burwick 1992). However, as Burwick and Camporesi both observe, the lower orders were well aware of the source of their disorders, but were forced into eating bread made from infected grain through necessity or the greed of unscrupulous or equally desperate millers (Burwick 1992; Camporesi 1996). In Burwick's schema, Blake evinces knowledge of the capacity of ergotized bread both to inspire and to delude, though he professes ignorance of whether Blake would have had experience of ergot intoxication himself.

As to possible sources of Perutz's assertion via Baron Malchin that ergot was

the secret psychoactive sacrament of the ages, as early as 1829 Eusèbe de Salverte dedicated twenty-nine pages of his *History of the Occult Sciences* to the use of drugs in the occult and mystical traditions, including the ancient mysteries (Salverte 1829). Salverte was the source of Manly P. Hall's assertion, in his encyclopedia of esoteric wisdom *The Secret Teachings of All Ages*, that drugs were used in the ancient Greco-Roman mystery religions to converse with the immortals and behold the gods. Manly P. Hall quoted Salverte to the effect that:

The aspirants to initiation, and those who came to request prophetic dreams of the gods, were prepared by a fast, more or less prolonged, after which they partook of meals expressly prepared; and also of mysterious drinks, such as the water of Lethe, and the water of Mnemosyne in the grotto of Trophonius; or of the Kykeon in the mysteries of Eleusinia. Different drugs were easily mixed up with the meats or introduced into the drinks, according to the state of mind or into which it was necessary to throw the recipient, and the nature of the vision he was desirous of procuring. (Hall 1928)

The neurological symptoms that can be a result of consuming ergot-tainted rye have been said to be the cause of accusations of bewitchment that spurred the Salem witch trials. This medical explanation for accusations of "bewitchment" was first propounded by Linnda R. Caporael in 1976 in an article in the journal *Science*. In 1982, historian Mary Matossian revisited Caporael's theory in an article in *American Scientist* in which she argued that symptoms of "bewitchment" resemble the ones exhibited

in those afflicted with ergot poisoning. In 1991, Matossian published *Poisons of the Past: Molds, Epidemics and History* (Matossian 1989), which proposed that epidemics, sporadic outbursts of bizarre behavior together with low fertility and high death rates from the fourteenth to the eighteenth centuries may have been caused by poisoning from ergot in bread. Matossian also speculates that the "Great Fear," the outbreak of paranoia and social unrest amongst French peasantry that preceded the French Revolution, was due to ergotism, an intriguing parallel to the communist uprising inspired by Baron Malchin's experiment.

Matossian's work proceeds on the basis of the same kind of climatic and demographic analysis as that claimed by Baron Malchin in *St Peter's Snow*. However, Matossian does not clearly credit earlier researchers with concluding, as she does from a combination of climate and demography, that that ergot was responsible for outbreaks of religious or other hysteria. Rather she emphasizes that the connection between ergot and the symptoms of ergotism were poorly understood until the mid-eighteenth century. Yet it is evident that ergot had been earlier identified as a possible cause of outbreaks of religious enthusiasm. Hanbury Smith (1850) in his *Sketch of the Epidemic Religious Monomania, Which Occurred in Sweden, in the Year 1841 and 1842*, which opens with a reference to the dancing mania of the fourteenth century, reports that many physicians:

persisted in attributing the epidemic to the poisonous influence of foreign ingredients in the rye, which almost exclusively constitutes the bread corn of that part

of Sweden, mainly to ergot, which was particularly common in the years in question. But independent of the fact that, minute examination detected no foreign ingredient of a poisonous character in the corn, except ergot, there is no substance we are acquainted with possessed of the property of occasioning religious mania.

Working as an insurance actuary Perutz will have studied mortality demographics going back over many years and may well have drawn the conclusion ascribed in his novel to Baron Malchin. It was Baron Malchin's observation that demographic patterns of religious hysteria in the Middle Ages followed the climatic conditions that favored infestation of grain by the ergot fungus which, along with the information he gleaned from classical and other sources, led to his identification of ergot as the secret psychoactive sacrament of the mystery traditions.

Conclusion

Returning to the questions posed at the outset concerning the apparently mysterious sources of Perutz's knowledge, many can be answered relatively straightforwardly. How did an Austrian author, writing in 1933, predict the isolation of a hallucinogenic drug from an ergot-type fungus ten years before the discovery the hallucinogenic properties of LSD? At the time of Perutz's writing *St Peter's Snow*, alkaloids had already been isolated from ergot and ergot had been cultured in artificial media exactly as described in Perutz's novel.

How did Perutz predict a mass testing of a hallucinogenic drug on the unsuspecting inhabitants of an isolated village almost

twenty years before the Pont St Esprit incident? The potential of ergot to induce mass hysteria of a religious order had already been proposed. The history of biological warfare reveals that during the First World War, "the Germans developed anthrax, glanders, cholera, and a wheat fungus specifically for use as biological weapons." The purpose of the wheat fungus though being to contaminate packhorse feed to disable transportation (Hunsicker 2006).

How could Perutz be able to reveal ergot as the secret sacrament of the ancient mysteries over forty years before this possibility became a matter of academic and scientific investigation in the 1970s? The use of psychoactive plants to communicate with the gods in the ancient world had been extensively documented by Eusebe Salverte in the nineteenth century and had reached popular consciousness in the 1920s.

All these elements appeal as knowledge that an individual in Perutz's intellectual milieu could well have acquired by keeping up with scientific and medical developments or through café conversation. However, the historical circumstances behind Perutz's novel are as curious, fascinating, and as full of ambiguity as his assemblage of these parts into a dramatic story. Perutz conjured them together into a gripping psychological mystery story, drawing on contemporary cultural events.

To read the unintended consequence of the Baron's experiment of a Communist uprising rather than a religious revival as a warning concerning Nazism, as some contemporary reviews concluded, appears as a misreading due to the Baron's espousal of a legitimist pretender of a revived Holy Roman Empire. As the annexation of

Austria by the Nazis became imminent, legitimism became a hope for staving off Nazis. Legitimists were executed by the Nazis following the Anschluss and legitimists formed a core element of the Austrian resistance movement (Luza 1984). Perutz himself moved from being Social Democrat to supporting legitimism. While it may seem odd for a Jewish man to support a Catholic dynasty allied to the Holy Roman Empire, Kantorowicz and other members of the George Circle were Jewish and Joseph Roth (1894–1939), another Austrian Jewish author and one whose novels express a nostalgia for life under the Habsburgs, also adopted legitimism (Rosenfeld 2001).

The historical investigations in this article have provided prosaic explanations for Perutz's apparently mysterious prescience concerning the isolation of an LSD type hallucinogen from an ergot-type fungus and the surreptitious experimental intoxication of a rural village with just such a drug. Although these investigations have significantly demystified the apparently mysterious sources of Perutz's arcane knowledge concerning psychoactive sacraments, at the same time they have revealed the complex cultural background in which Perutz's novel was conceived. However, the explanations provided do not write off the possibility of Perutz having insider knowledge of esoteric secrets, including Jewish mystical traditions, in an era when philosophers such as Walter Benjamin and Ernst Bloch combined an interest in psychoactive drugs and the Jewish mystical tradition. *Fin-de-siècle* Vienna was a hotbed of esoteric activity and as attested by Perutz's stories the occult and supernatural were, then as now, a major part of popular culture. Perutz's tender and sometimes

humorous depiction of Rabbinic magic in the linked stories of *By Night under the Stone Bridge* reflect his memories growing up in the Prague ghetto before its destruction and the stories as told to him by his tutor reflect the popular persistence of the Jewish mystical tradition.

Much no doubt remains to be revealed concerning the secret history of the use of psychoactive drugs in the esoteric tradition.

Notes

- 1 See also the Wikipedia entry on this incident: <http://en.wikipedia.org/wiki/Pont-Saint-Esprit>.
- 2 For his account of Leo Perutz's life and works the author relied heavily on the Wikipedia entry on Leo Perutz, http://de.wikipedia.org/wiki/Leo_Perutz, for which service he is grateful.
- 3 Coincidentally Crick has been regularly cited as having experimented with LSD, though rumors that LSD experiences actually facilitated his conception of the double helix of DNA appear ill-founded. However, according to Crick's biographer Matt Ridley "In 1967 he joined the council of an informal organisation called Soma to campaign for the legalisation of drugs, and ... Crick was certainly an occasional user of both pot and LSD" (Ridley 2006). It appears that any use of psychoactive drugs by Crick was subsequent to his development, together with Watson, of a helical model for the structure DNA, which they published in 1953, and for which together with subsequent work they were awarded the Nobel Prize in 1962.
- 4 Some of the so-called "bog bodies," the naturally preserved human corpses, largely dating from the Iron Age, found in the sphagnum bogs of Northern Europe have had ergot infected grain products in their gut. As many were apparently ritually slaughtered, it has been suggested either that they were deliberately drugged before being killed or that their bizarre intoxicated behavior led to their slaughter.

References

- Albarelli, H.P., 2011. *A Terrible Mistake: The Murder of Frank Olson and the CIA's Secret Cold War Experiments*. Walterville, OR: Trine Day.
- Alm, T., 2003. "The Witch Trials of Finnmark, Northern Norway, during the 17th Century: Evidence for Ergotism as a Contributing Factor." *Economic Botany* 57(3): 403–16.
- Artaud, A., 1945. *D'un voyage au pays des Tarahumaras*. Paris: Éditions de la revue Fontaine.
- Beringer, K., 1927. *Der Meskalinrausch. Seine Geschichte und Erscheinungsweise*. Monographie aus dem Gesamtgebiete der Neurologie und Psychiatrie Bd. 49. Berlin: Springer.
- Bloch, E., 1986. *Das Prinzip Hoffnung* (3 Vols: 1938–1947). Frankfurt am Main: Suhrkamp. (See Bloch, E., 1995. *The Principle of Hope*, Vol. I. Cambridge, MA: MIT Press.)
- Boon, M., 2006. "Walter Benjamin and Drug Literature," in H. Eiland (ed.), *Introduction to Walter Benjamin: On Hashish*. Cambridge, MA: Harvard University Press, pp. 1–12.
- Boureau, A., 2001. *Kantorowicz: Stories of a Historian*. Baltimore, MD: The Johns Hopkins University Press.
- Bove, F.J., 1970. *The Story of Ergot: For Physicians, Pharmacists, Nurses, Biochemists, Biologists, and Others Interested in the Life Sciences*. Basel and New York: S. Karger.
- Burwick, F., 1992. *Poetic Madness and Romantic Imagination*. University Park, PA: Pennsylvania State University Press.
- Camporesi, C., 1996. *Bread of Dreams: Food and Fantasy in Early Modern Europe*, Cambridge: Polity Press.
- Caporael, L.R., 1976. "Ergotism: The Satan Loosed in Salem?" *Science* 192: 21–6.
- Covach, J., 1998. "Balzacian Mysticism, Palindromic Design, and Heavenly Time in Berg's Music," in S. Bruhn (ed.), *Encrypted Messages in Alban Berg's Music*. New York: Garland Publishing, pp. 5–29.
- Ewers, H.H., 1906. *Literatur und Kunst*. Berlin: Das Blaubuch.
- George, S., 1928. *Das Neue Reich*. Berlin: Georg Bondi.
- Godwin, J., 1996. *Arktos: The Polar Myth in Science, Symbolism and Nazi Survival*. Kempton, IL: Adventures Unlimited Press.
- Haldane, J.B.S., 1926. *Daedalus; or, Science and the Future*. New York: E.P. Dutton & Co.
- Hall, M.P., 1928. "Hermetic Pharmacology, Chemistry and Therapeutics," In *The Secret Teachings of All Ages*. Los Angeles, CA: Philosophical Research Society, pp. 109–12.
- Hanbury Smith, S., 1850. *Sketch of the Epidemic Religious Monomania, Which Occurred in Sweden, in the Year 1841 and 1842*. Columbus, OH: Medary's Steam Press.
- Fry, P. and Long, M., 1977. W. Harman Interview in *Beyond the Mechanical Mind: An Investigation* (based on the ABC radio series *And Something Else Is Happening*). Sydney: Australian Broadcasting Commission.
- Hofmann, A., 1980. *LSD: My Problem Child: Reflections on Sacred Drugs, Mysticism, and Science*. New York: McGraw-Hill. (German edition: Hofmann, A., 1979. *LSD—mein Sorgenkind*. Stuttgart: Klett-Cotta.)
- Hoffmann, P., 2008. *Stauffenberg: A Family History, 1905–1944*. Montreal: McGill-Queens University Press.
- Hunsicker, A., 2006. *Understanding International Counter Terrorism*. Boca Raton, FL: Universal Publishers.
- Jay, M., 1992. "'The Aesthetic Ideology' as Ideology; or What Does It Mean to Aestheticize Politics?" *Cultural Critique* 21: 41–62.
- Jünger, E., 1949. *Heliopolis: Rückblick auf eine Stadt*. Tübingen: Diana-Verlag.
- Jünger, E., 1970. *Annäherungen: Drogen und Rausch*. Stuttgart: Klett Verlag.
- Kantorowicz, E.H., 1931. *Frederick the Second 1194–1250*, London: Constable.

- Kohl, B.G., Midelfort, H.C.E., and Shea, J., 1998. *On Witchcraft: An Abridged Translation of Johann Weyer's "De Praestigijis Daemonum."* Asheville, NC: Pegasus Press.
- Lee, M., 1988/9. "The CIA, LSD and the Occult." An interview in *High Frontiers*, Issue #4, reprinted in *The Project VI*(1).
- Lincoln, H. 2011. *The Holy Place*. New York: Arcade Publishing.
- Loose, G., 1974. *Ernst Jünger*. New York: Twayne Publishers.
- Mali, J., 2003. *Mythistory: The Making of a Modern Historiography*. Chicago, IL: University of Chicago Press.
- Matossian, M. K., 1989. *Poisons of the Past: Molds, Epidemics and History*. New Haven, CT: Yale University Press.
- Merkur, M., 2000. *The Mystery of Manna*. Rochester, VT: Inner Traditions Bear and Company.
- Merkur, M., 2001. *The Psychedelic Sacrament: Manna, Meditation, and Mystical Experience*. Rochester, VT: Park Street Press.
- Mitchell, A., 2011. "The Plot against Hitler." In *The Devil's Captain: Ernst Jünger in Nazi Paris, 1941–1944*. New York: Berghahn Books.
- Packer, S., 1998. "Jewish Mystical Movements and the European Ergot Epidemics." *The Israel Journal of Psychiatry and Related Sciences* 35(3): 227–39.
- Patzak, P. (dir.), 1991. *St Petri-Schnee*. Austria.
- Perutz, L., 1915. *Die dritte Kugel*. Munich: Erstausgabe bei Albert Langen.
- Perutz, L., 1933. *St Petri-Schnee*. Berlin: Zsolnay.
- Perutz, L., 1935. *The Virgin's Brand*. New York: E.P. Dutton & Co.
- Perutz, L., 1953. *Nachts unter der steinernen Brücke: Ein Roman aus dem alten Prag*. Frankfurt/Main: Frankfurter Verlagsanstalt. (English translation: Perutz, L., 1991. *By Night under the Stone Bridge*. London: Harvill Press.)
- Perutz, L., 1990. *St Peter's Snow*. London: William Collins.
- Perutz, L., 1994. *Master of the Day of Judgement*. London: HarperCollins. (Perutz, L., 1923. *Der Meister des Jüngsten Tages*. Munich: Albert Langen).
- Perutz, L. and Frank, P., 1916. *Das Mangobaumwunder*. Munich: Albert Langen,.
- Pliny, 1956. *Natural History*, Volume VII, Books 24–7. Loeb Classical Library, Cambridge, MA: Harvard University Press.
- Ridley, M., 2006. *Eminent Lives: Francis Crick: Discoverer of the Genetic Code*. London: Harper Press.
- Rosenfeld, S., 2001. *Understanding Joseph Roth*. Columbia, SC: University of South Carolina Press.
- Rouiller, F., 2002. "Un Visionnaire Autrichien," in *Stups et fiction: Drogue et toxicomanie dans la science-fiction*. Paris: Belles Lettres, pp. 51–5.
- Sá, L., 2002. "Germans and Indians in South America: Ethnography and the Idea of Text," in G. Schrempf and W. Hansen (eds), *Myth: A New Symposium*. Bloomington, IN: Indiana University Press, pp. 61–71.
- Luza, R., 1984. *Resistance in Austria 1938–45*. Minneapolis, MN: University of Minnesota Press.
- Salverte, E., 1829. *Des sciences occultes ou Essai sur la Magie, les prodiges et les miracles*, 2 Vols. Paris: Sédillot.
- Scholem, G., 1987. *Origins of the Kabbalah*. Princeton, NJ: Princeton University Press.
- Stevens, J., 1987. *Storming Heaven: LSD and the American Dream*. New York: Atlantic Monthly.
- Wasserstrom, S.M., 2010. "'The Great Goal of the Political Will Is Leviathan': Ernst Jünger and the Cabala of Enmity," in B. Huss, M. Pasi, and C.K.M. von Stuckrad (eds), *Kabbalah and Modernity: Interpretations, Transformations, Adaptations*. Leiden and Boston, MA: Brill Academic Publishers, pp. 329–56.
- Wasson, R.G., Ruck, C., and Hofmann, A., 1978. *The Road to Eleusis: Unveiling the Secret of the Mysteries*, Ethno-mycological Studies, No. 4. New York: Harcourt Brace Jovanovich.

Witkiewicz, S.I., 1930. *Nienasycenie*, Warsaw.
Translation: Witkiewicz, S.I., 1985. *Insatiability*.
London: Quartet Books.

Witkiewicz, S.I. and Gerould, D., 1992. *The Witkiewicz Reader*. Evanston, IL: Northwestern University Press.